

REMARKS

By this Amendment, claims 1 and 16 are amended to obviate informalities, and not for substantial reasons related to patentability. Claims 15 and 17 are canceled. Accordingly, claims 1-14 and 16 are pending in this application.

Applicants appreciate the Office Action's indication that claims 2-4, 6-10 and 12-14 contain allowable subject matter.

The Examiner is respectfully requested to acknowledge consideration of the references listed on the Form PTO-1449 submitted with the June 24, 2004 Information Disclosure Statement. A courtesy copy of the June 24, 2004 Form PTO-1449 is enclosed herein for the Examiner's convenience.

Applicants thank Examiner Benton for the courtesy extended to Applicants' representative, Mr. Luo, during the April 12, 2005 personal interview. The substance of the personal interview is incorporated in the following remarks.

The Office Action rejects claims 1 and 16 under 35 U.S.C. §102(e) over U.S. Patent No. 6,619,241 to Otterspeer et al. This rejection is respectfully traversed.

The Office Action rejects claims 1 and 16 over Otterspeer, but does not identify specifically where each and every element recited in claims 1 and 16 is disclosed or taught in Otterspeer. In particular, page 3 of the Office Action includes many assertions regarding the operation of the Otterspeer apparatus, but does not explain where these features are described in the Otterspeer specification. Applicants respectfully submit that such a rejection does not establish a *prima facie* case of anticipation. The Examiner is required to identify specifically where each claimed feature is found in a reference to establish a *prima facie* case of anticipation, so that Applicants can recognize and seek to counter the grounds for rejection. See Chester v. Miller, 15 USPQ2d 1333, 1337 (Fed. Cir. 1990).

In any event, Applicants respectfully submit that Otterspeer does not disclose or suggest all features recited in claims 1 and 16. Specifically, Otterspeer discloses an internal combustion engine having a plurality of cylinders. See Fig. 1 and col. 3, lines 34-55. The firing order of the cylinders may be changed to transition between different stroke modes. See col. 5, lines 28-53. However, as discussed during the personal interview, first, Otterspeer does not disclose or suggest performing at least one transition cycle upon switching of an operation mode of the engine between a first operation mode and a second operation mode. Second, Otterspeer does not disclose or suggest a transition cycle that performs an operation of a same cycle type as the second operation mode, the second operation mode being performed after the switching. Third, Otterspeer does not disclose or suggest a transition cycle that is different from the second operation mode in at least one of an intake valve opening timing, an intake valve closing timing, an exhaust valve opening timing, an exhaust valve closing timing, an injection quantity of the fuel, and an injection timing of the fuel. Fourth, Otterspeer does not disclose or suggest a combustion ignition control that is executed in one of the combustion chambers where a single cycle of the transition cycle is terminated until each of all combustion chambers terminates a single cycle of the transition cycle, as recited in claim 1, and similarly recited in claim 16. Thus, as agreed to during the personal interview, Otterspeer does not disclose each and every element recited in claims 1 and 16. Accordingly, withdrawal of the rejection of claims 1 and 16 under 35 U.S.C. §102(e) is respectfully requested.

The Office Action rejects claims 15 and 17 under 35 U.S.C. §102(e) over U.S. Patent No. 6,615,771 to Denger et al. This rejection is moot in view of the cancellation of claims 15 and 17.

The Office Action rejects claims 5 and 11 under 35 U.S.C. §103(a) over Otterspeer in view of Denger. This rejection is respectfully traversed.

Denger discloses allocating two-stroke and four-stroke operational ranges for an engine. See col. 3, lines 41-46. Denger does not disclose or suggest performing at least one transition cycle upon switching of an operation mode of the engine between a first operation mode and a second operation mode; a transition cycle that performs an operation of a same cycle type as the second operation mode, the second operation mode being performed after the switching; a transition cycle that is different from the second operation mode in at least one of an intake valve opening timing, an intake valve closing timing, an exhaust valve opening timing, an exhaust valve closing timing, an injection quantity of the fuel, and an injection timing of the fuel; or a combustion ignition control that is executed in one of the combustion chambers where a single cycle of the transition cycle is terminated until each of all the combustion chambers terminates a single cycle of the transition cycle, as recited in claim 1. Thus, Denger does not supply the subject matter lacking in Otterspeer.

For any of the above reasons, the combination of Otterspeer and Denger does not disclose or suggest the subject matter recited in claim 1, and claims 5 and 11 depending therefrom. Accordingly, withdrawal of the rejection of claims 5 and 11 under 35 U.S.C. §103(a) is respectfully requested.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-14 and 16 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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Attachment:

Courtesy copy of June 24, 2004 Form PTO-1449

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